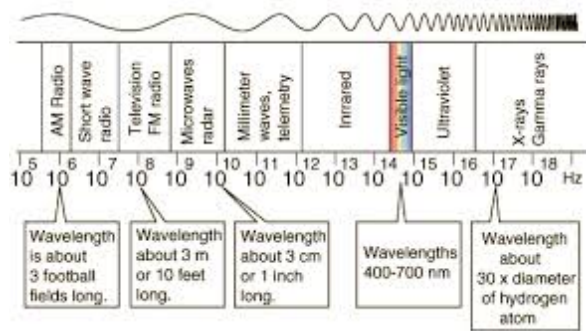


Welcome to PHYSICS!!!

H. Leslie Grebe
Room C-244

SECA Physics
Tuesday 17 June 2014



Opening Question:

What color is a mirror?

<https://www.youtube.com/watch?v=-yrZpTHBEss>

Sep 7-7:04 AM

Invisible Worlds - Piano key board?

EM waves?

Light is caused by things like electrons moving. This creates **ELECTROMAGNETIC WAVES**.

EM waves is just another name for all kinds of **LIGHT**.

Computer Lab: EM Web Quest

- Work with a partner (or alone)
- Points for the worksheet

Mar 11-7:27 AM

- 1) What does the earth's atmosphere protect us from? (1)

DANGEROUS EM X-RAYS, GAMMA

- 2) What do waves transport? (2)

ENERGY

- 4) What is a photon?

PACKET OF ENERGY
LIGHT AS PARTICLE

PHOTON = couch & BED

- 15) List the kinds of EM waves from lowest energy to highest. (1) or (5-12)

RADIO, MICROWAVE, INFRARED, VISIBLE, UV, X-RAY, GAMMA

- 17) What do you wonder about light after doing this activity?

SENSE BESIDES SEEING

Jun 17-11:41 AM

Welcome back...

H. Leslie Grebe

Opening Question:

FUNHOUSES/
MAZES

What is one place in life we use a concave mirror?

MAKE-UP

A convex mirror?

SECURITY
CAR SIDE MIRROR

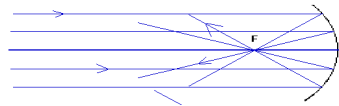
LOOKING
UNDER
CARS



Sep 7-7:04 AM

Law of Reflection:

Angle in = **ANGLE OUT**

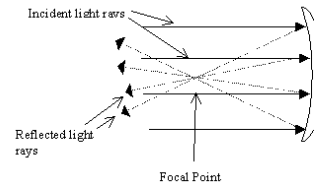


Let's experiment with a concave mirror

=> converges light

Need a partner

- find focal length of mirror
- find object and image distances



What did we find???

Focal length? **19.5cm \approx 20cm**

Orientation? **UPSIDE DOWN ALL REAL IMAGES**

Inside focal length what happened?

NO REAL IMAGE

BUT COULD SEE IN MIRROR = VIRTUAL

As ~~flashlight~~ **CANDLE** moved farther, screen moved **CLOSER**

As ~~flashlight~~ **CANDLE** moved farther, image got **SMALLER**

Nov 16-7:37 AM

Our 3 Questions

- * Most periods except test/project times
- * 3 Questions on the topics of the class
- * Main source of classwork points
- * I am happy to give full credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

- 1) What is the name of the point where parallel light rays will be focused by a concave mirror? (1ST THING YOU MEASURED)
- a. object distance
 - b. image distance
 - c. focal point

2) **True or False:**

Images that form clearly on a cardboard screen (real images) are upside down. = INVERTED

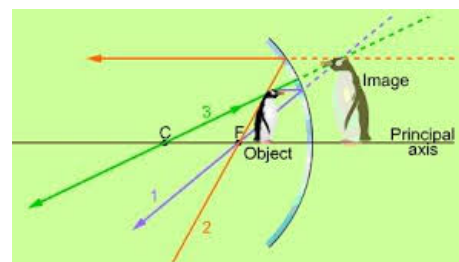
- 3) What happens to the image size as the flashlight is moved farther from the mirror? ^{CAMALE}

- a. image gets **smaller**
- b. image stays the **same size**
- c. image gets **bigger**

Jun 16-11:32 AM

Welcome back...

H. Leslie Grebe



Opening Question:

What's the difference between a **real** and a **virtual** image?

- INVERTED - UPRIGHT
- SCREEN - IN MIRROR

Sep 7-7:04 AM

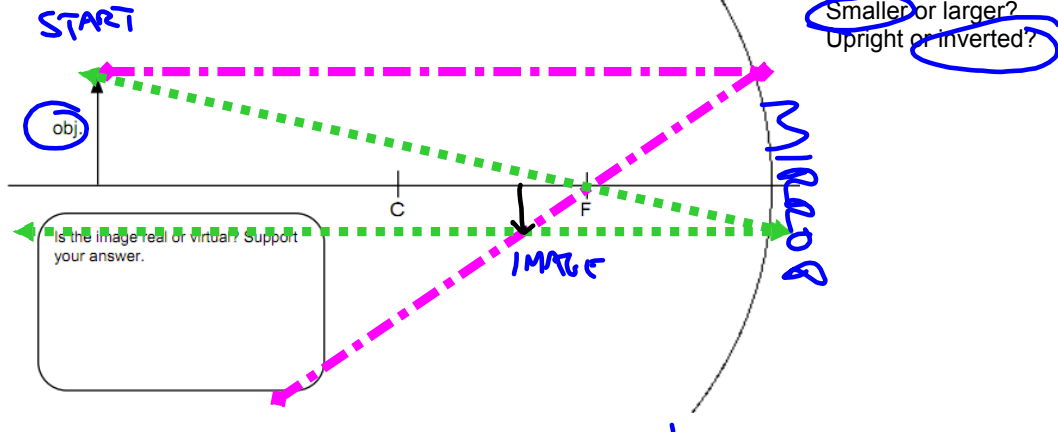
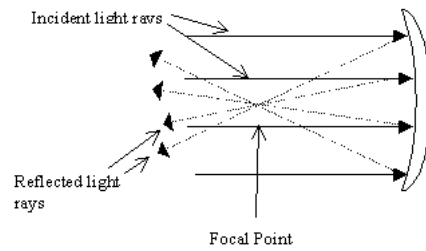
Recap our experiment:

Fill in the blanks...

New: FIND THE IMAGE Challenge

* Mid line gets reflected straight back

1. In parallel => out through focus
2. In through focus => out parallel

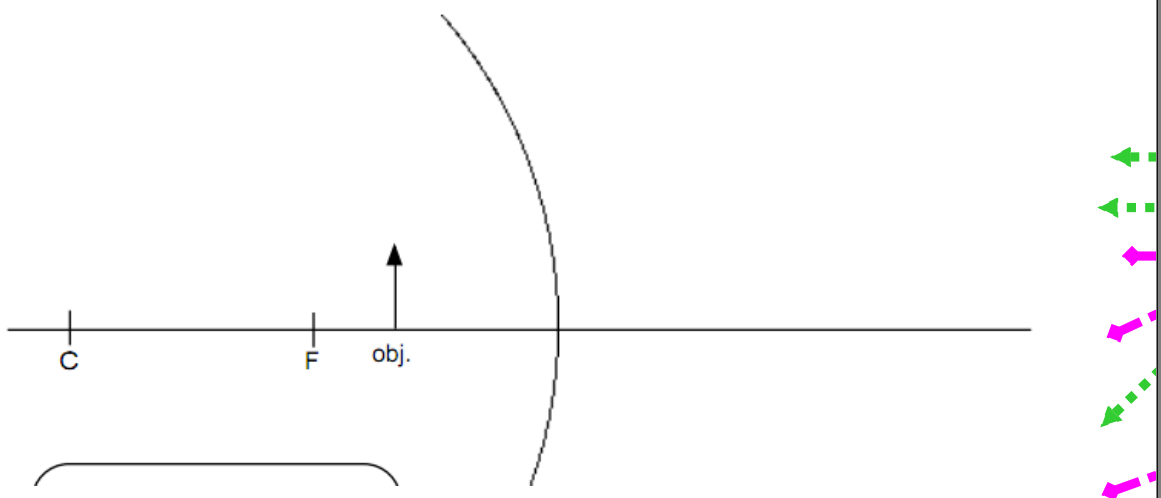


Nov 16-7:37 AM

* Mid line gets reflected straight back

1. In parallel => out through focus
2. In through focus => out parallel

Real or virtual?
Smaller or larger?
Upright or inverted?



May 2-7:57 AM

Our 3 Questions

- * Most periods except test/project times
- * 3 Questions on the topics of the class
- * Main source of classwork points
- * I am happy to give full credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

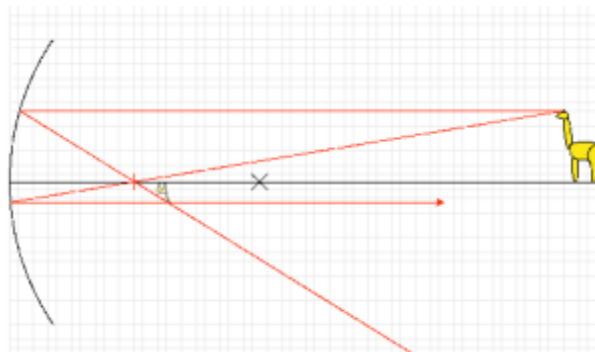
Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1) To draw ray diagrams, the first ray goes in parallel to the middle and out _____.

- 2) Images that form clearly on a cardboard screen are called
- real
 - virtual
 - (it depends)

- 3) For the ray diagram below, the image is
- upright
 - inverted
 - neither



Apr 16-7:13 AM